

Call for Papers



[5th International Workshop on Energy-Efficient Data Centres](#)

Co-located with the [ACM e-Energy 2016](#), the 7th International Conference on Future Energy Systems

June 21, 2016 - Waterloo, Canada

Important Dates

Paper submission:

March 7th, 2016

Notification of

acceptance: **April 21st, 2016**

Submission of camera-ready

papers: **May 25th, 2015**

Workshop Chairs

Sonja Klingert, University of Mannheim, Germany

Gunnar Schomaker, Software Innovation Campus Paderborn, Germany

Natalie Bates, Energy Efficient High Performance Computing Working Group

Technical Programme Committee

Hermann de Meer (University of Passau, Germany)

Girish Ghatikar (Technology Greenlots, USA)

Xavier Hesselbach-Serra (Universitat Politècnica de Catalunya, Spain)

Lorenz M. Hilty (University of Zurich and Empa Materials Science and Technology, Switzerland)

Jorjeta Jetcheva (Fujitsu Laboratories of America, USA)

Paul Kühn (University of Stuttgart, Germany)

Stefan Naumann (Trier University of Applied Sciences, Germany)

Florian Niedermeier (University of Passau, Germany)

Barbara Pernici (Politecnico di Milano, Italy)

Between now and 2017, the global footprint of data centres will grow over 40 million square feet, from 109 million to close to 150 million square feet. This growth is stimulated by IT based intelligence penetrating all areas of production and consumption by analyzing more and more data. Thus, the increasing power demand of data centres will remain unremitting, as well as the need for their holistic efficiency and sustainability.

The 5th international workshop on energy efficient data centres (E²DC 2016) presents an agile platform for researchers in government, academia and industry. Our goal is to identify cutting-edge research and to discuss how to transfer innovations from research to DC industry.

The DC is a basic block in digitization of business models or enterprise solutions to cope with the intrinsic growth of the system complexities. It is indispensable for the future energy grid, smart factories or future mobility. Innovations like increased energy-workload proportional behavior of a DC, networking and storage systems, energy-aware workload management, cyber physical devices and highly responsive DC infrastructure designs will continue to fight the gap of peak performance needs and energy demands during low utilization time.

E²DC 2016 will extend the topics by discussing the potential of specialization and collaboration of DCs. Computing disciplines like HPC, Big data analytics, distributed applications and traditional office applications are now pooled and joined by enterprise platforms.

Topics are not confined to technical solutions, but extend to economic issues of the proposed solutions and interdisciplinary holistic approaches.

The workshop invites original papers that were not previously published and are not currently under review for publication elsewhere. Topics include, but are not limited to:

- The potentials of specialist; The potential of special applications, data centre resources and service platforms
- Standardization and eco-efficient data centre architectures
- Energy awareness by applications and service architectures
 - Communication and network solutions
 - Infrastructure and architectures management
 - Cloud and high performance computing
 - Big data and large scale simulations
 - Data storages and reservoirs
 - Software defined data centres, networks and storages
- Metrics and KPIs for green data centres
- Smart cities or future energy grids and data centre integration
- Novel green ICT business models and data centres
- Emerging Markets and data centre energy procurement
 - Demand response strategies integrating data centres
 - Optimizing the use of renewable energy sources in data centres

Submission and publication of the work

The workshop will be co-located ACM e-Energy 2016. Manuscripts will be published in the ACM proceedings and must adhere to [ACM format](#). Submission implies the willingness of at least one author to register and present the paper at E²DC. The organizers reserve the right to exclude a

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Suzanne Rivoire (Sonoma State University, USA)

Anand Sivasubramaniam (Tata, India)

Monica Vitali (Politecnico di Milano, Italy)

paper from publication if it is not presented. For more information please contact klingert@informatik.uni-mannheim.de.